

SPECIAL PROJECT SPECIFICATION

Section 106 – Measurement & Payment

106.03 Units of Measurement

Delete this subsection and add the following:

“Forest Service Specifications for Construction of Roads and Bridges (Revised August 1996) are based on Modern Metric units of measurement. The dimensions and units of measure SHOWN ON THE DRAWINGS and used to develop SPECIAL PROJECT SPECIFICATIONS for this contract, utilize U.S. Standard English units of measure. All measurements referenced in the August 1996 Forest Service Standard Specifications (EM-7720-100) shall be converted to U.S. Standard English units of measure. Appendix A – Engineering Conversion Factors and Appendix B – SI (Modern Metric) Conversion Factors, are included on pages 611 – 614 of the Standard Specification Appendices to assist with any required conversions.

Work required by the contract will be paid based on the PAY UNIT (U.S. Standard English measure) as DESIGNATED IN THE SCHEDULE OF ITEMS.

Under each Specification Section with PAY ITEMS of work DESIGNATED IN THE SCHEDULE OF ITEMS for measurement and payment under this contract, the last subsection “Payment - Basis”, shall have the following format:

Pay Item - Numbering system and work description to remain the same.

Pay Unit - Pay unit(s) DESIGNATED IN THE SCHEDULE OF ITEMS have been changed from metric to the corresponding unit of U.S. Standard English measure.

Payment will be by units defined and determined according to U.S. Standard English measure and by the following:

- (a) **Cubic Yard in Place.** Measure solid volumes by the average end area method as follows:
 - (1) Measure cross sections of the original ground and use with design or staked templates, or take other comparable measurements to determine the end area. Do not measure work outside of the established lines or slopes.

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SECTION 171 – CONSTRUCTION STAKING

171.20 BASIS: Add the following Pay Item:

<u>Pay Item</u>	<u>Pay Unit</u>
171(04) Construction Staking, Precision C, Method 1	LS

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SECTION 01600 USE OF GOVERNMENT FACILITIES

PART 1. GENERAL

1.01 STAGING AREAS

The COR will designate areas for contractor's use for the purpose of storage of material and equipment. Generators shall meet Forest Service requirements for spark arrestors and noise levels. The contractor's employees shall comply with the Forest Service Fire Control, Safety, and Nuisance Regulations. The contractor shall protect the existing improvements and return this area to its original condition upon termination of its use. Closure of this area to public use shall only be done with the approval of the Contracting Officer. Prior to entering the river, vehicles and equipment shall be visually checked for leakage of fluids and all leaks shall be repaired before fording the river.

1.02 CAMPING SITES

No Forest Service campgrounds shall be made available for use by contractor's employees.

1.06 PAYMENT

No separate payment will be made for work specified in this section. Payment for this section shall be included in the bid price for related pay items.

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SECTION 01200 SHOP DRAWINGS AND SUBMITTALS

PART 1. GENERAL

- 1.01 SCOPE: Work Included: Perform all work necessary and required for the construction of the project as indicated. Such work includes but is not limited to the following:
- A. Shop Drawings
 - B. Samples
 - C. Catalog Data
- 1.02 ITEMS INCLUDED IN SHOP DRAWINGS: Shop drawings shall include all pertinent data required for the proper fabrication and installation of the materials specified.

PART 2. PRODUCTS

Not applicable.

PART 3. EXECUTION

3.01 SHOP DRAWINGS

- A. Shop drawings shall be submitted as defined in FAR 52.236-21, Apr. 1984 Specifications and Drawings for Construction.

3.02 SAMPLES

- A. Original Submittal: Two samples, unless otherwise specified for each item for which samples are required shall be furnished for approval. Approval shall be obtained prior to delivery of the material to the project site. Such samples shall be representative of the actual material proposed for use in the project and of sufficient size to demonstrate design, color, texture and finish when these attributes will be exposed to view in the finish work.
- B. Resubmittal: All rejected samples will be returned upon request, and pay any or all resubmittals required shall consist of two new samples.
- C. Approval: Upon approval one sample so noted will be returned and the Contracting Officer will retain the remainder until completion of the work. When requested, all approved samples will be returned for installation provided their identity is maintained in an approved manner until final acceptance of the project.

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3.03 CATALOG DATA

Submittals: Four copies of catalog data are required for the original submittal and each subsequent resubmittal that may become necessary. Catalogue data shall be submitted along with shop drawings. If approved or not approved, one copy will be returned so noted. If approved, such additional copies as may be by the Contracting Officer shall be furnished without additional cost.

Data: Each submittal shall have all pertinent data contained therein that are applicable to the item submitted for approval, adequately and permanently designated.

3.04 IDENTIFICATION

- A. Catalog Data: Each separate catalog, brochure, or single page submitted shall have the identification required herein before.
- B. Catalogs or brochures submitted containing multiple items for approval needs the identification only on the exterior. In such instances the identification shall include page and catalog item numbers.
- C. In the event that one or more of the multiple items are not approved in any submittal, the additional copies required will not be requested until all items are approved.

3.05 CONTRACTORS RESPONSIBILITY

- A. Prohibitions: No portion of the work requiring a shop drawing, sample, or catalog data shall be started nor shall any materials be fabricated or installed prior to the approval of such item.
- B. Approvals: Project work, materials fabrication, and installation shall conform to approved shop drawings, applicable samples, and catalog data.

PART 3. PAYMENT

Payment will be considered incidental to other items in this contract.

END OF SECTION

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SECTION 625 - SEEDING AND MULCHING is revised as follows:

625.03 SEEDING SEASONS. Unless approved otherwise, the normal seasonal date for seeding is:

SEPTEMBER 1 to OCTOBER 15

625.05 APPLICATION METHODS FOR SEED, FERTILIZER, AND LIMESTONE. DELETE the first paragraph and substitute the following:

Material shall be placed by the method(s) shown in the SCHEDULE OF ITEMS.

(b) Dry Method. DELETE the first sentence and substitute the following:

When vegetative mulch is applied simultaneously with the seed and fertilizer, the seed and fertilizer shall be applied at the rates shown below. If vegetative mulch is applied after seeding and fertilizing, the seeding rate can be reduced by half, but the fertilizer application shall remain the same.

1. Fertilizer - "BIOSOL MIX" 7-2-3 1,000 pounds per acre
2. Mulch - Weed-free mulch shall be applied at the rate of 3,000 pounds per acre, which should provide a 2 to 3 inch covering of straw on the ground surface. On slopes one and one half to one and steeper, mechanical methods of mulch anchoring shall not be required provided a "smoothing operation" has not been performed on the constructed fill slope.
3. Seed Mixture: Mix A - dry to moderate sites (low-mid elevations, under 5,000')

Deschampsia Elongata	4.0 pounds per acre
Vulpia Microstachys	6.0 pounds per acre
Lotus Pershianus Sierra	7.0 pounds per acre
Bromus carinatus var. carinatus,	
Eldorado or Mokelumne Brome	9.0 pounds per acre
Elymus Glaucus Stanislaus 2000	4.0 pounds per acre
Elymus Glaucus, Eldorado	4.0 pounds per acre
Elymus elymoides, 3000	4.0 pounds per acre
Festuca rubra, Mokelumne Fescue	5.0 pounds per acre
Stipa lemmonii, Eldorado	2.0 pounds per acre
TOTAL:	45.0 pounds per acre

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4. Seed Mixture: Mix B - Moderate to moist sites (mid to high elevations, over 5,000')

Deschampsia cespitosa	4.0 pounds per acre
Deschampsia elongata	11.0 pounds per acre
Bromus carinatus var. carinatus, Eldorado or Mokelumne Brome	10.0 pounds per acre
Lotus purshianus, Sierra	6.0 pounds per acre
Hordeum brachyantherum	8.0 pounds per acre
Elymus glaucus, Stanislaus 5000	5.0 pounds per acre
Elymus glaucus, Eldorado	5.0 pounds per acre
Festuca rubra, Mokelumne Fescue	4.0 pounds per acre

TOTAL: 53.0 pounds per acre

SEEDING RATES: Normal or Adverse site conditions

Normal Rate: Use recommended rate when "normal" adversity is expected.

Adverse Rate: Use 1.5 times the recommended rate when on poor site, hot dry south aspect, serpentine soil, poor soil prep, or additional speed or efficacy is required.

PAYMENT

625.10 Basis: Add the following Pay Item:

<u>Pay Item</u>	<u>Pay Unit</u>
625(08) Seeding, Dry Method (with mulch), Seeding Mixture <u>A</u> , <u>Adverse</u> Site Condition.	Lump Sum

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SECTION 558 – Prefabricated, Modular Bridge Superstructure

558.10 Basis. Add the following pay item:

558 (03) Prefabricated bridge superstructure –
fabricate, deliver, and install Each

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SECTION 207- DEVELOPING WATER SUPPLY AND WATERING

207.02 REQUIREMENTS. Add the following to the second paragraph:

The designated water source is the Little Silver Creek, in the vicinity of the bridge site.

207.06 BASIS. Delete the existing section and add the following:

No separate payment will be made for work specified in this section. Payment for this section shall be included in the bid price for related pay items.

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SECTION 01800 DISPOSAL AND CLEANUP

PART 1. GENERAL

1.01 SCOPE

This section includes the requirements for the disposal of excess material resulting from construction operations and the cleanup work required in areas affected by the construction.

1.02 PAYMENT

No separate payment will be made for work specified in this section. Payment for such work shall be included in the contract unit price for related pay items.

PART 2. PRODUCTS

Not applicable.

PART 3. EXECUTION

3.01 DISPOSAL

All clearing slash, brush and vegetative matter may be scattered so as to not develop concentrations of material.

All debris, unused material, asphalt concrete, concrete pipe, old waterline pipe or appurtenances excavated shall be disposed of off National Forest land in accordance with local regulations.

The Contracting Officer's Representative will designate a clean-out area for concrete transit-mix trucks.

3.02 CLEANUP

Prior to final acceptance of construction areas and other areas occupied or disturbed by the contractor, the areas shall be cleaned. The contractor shall remove all rubbish, excess material, temporary structures and equipment. All parts of the work shall be left in a neat and presentable condition.

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(2) If any portion of the work is acceptable, but is not completed to the established lines and slopes, remeasure cross sections or comparable measurements of that portion of the work. Deduct any quantity outside the designated or staked limits. Use these measurements to calculate new end areas.

(3) Compute the quantity using the average end areas multiplied by the horizontal distance along a centerline or reference line between the end areas. Deduct any quantity outside the designed or staked limits.

Where it is impractical to measure material by the average end area method, other approved methods involving three-dimensional measurements may be used.

Measure liquid volumes in accordance with SPS Subsection 106.03(h).

- (b) Cubic Yard in the Hauling Vehicle. Measure the cubic yard volume in the hauling vehicle using three-dimensional measurements at the point of delivery. Use vehicles bearing a legible identification mark with the body shaped so the actual contents may be readily and accurately determined. Before use, mutually agree in writing upon the volume of material to be hauled by each vehicle. Vehicles carrying less than the agreed volume may be rejected or accepted at the reduced volume.

Level selected loads. If leveling reveals that the vehicle was hauling less than the approved volume, reduce the quantity of all material received since the last leveled load by the same ratio as the ratio of the current leveled load volume to the agreed volume. Payment will not be made for material in excess of the agreed volume.

Material measured in the hauling vehicle may be weighed and converted to cubic yards for payment purpose if the conversion factors are mutually agreed to in writing.

Compute measurement using measurements of material in the hauling vehicles at the point of delivery. Load vehicles to at least their water-level capacity. Leveling of the loads may be required when vehicles arrive at the delivery point.

- (c) Cubic Yard Mile. A combination of linear and volumetric measurement meaning the movement of a cubic yard of material one(1) mile.
- (d) Hour. Measurement will be for the actual number of hours ordered and performed by the Contractor.
- (e) Each. One complete unit, which may consist of one or more parts.

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- (f) Lump Sum. Do not measure directly. The bid amount is complete payment for all work described in the contract and necessary to complete the work for that item.
- (g) MFBM. One thousand feet board measure based on nominal widths, thickness, and extreme usable length of each piece of lumber or timber actually incorporated in the job. For glued laminate timber, 1,000 board feet based on actual width, thickness, and length of each piece actually incorporated in the job.
- (h) Gallon. The quantity may be measured by any of the following methods:
 - a. Measured volume container.
 - b. Metered volume. Use an approved metering system.
 - c. Commercially packaged volumes.
- (i) Station. One hundred linear feet measured horizontally.
- (j) Station Yard. A combination of linear and volumetric measurement meaning the movement of a cubic yard of material one station.
- (k) Square Yard. Measure on a plane parallel to the surface being measure or horizontal.
- (l) Thousand Gallons Mile. A combination of linear and volumetric measurement meaning the movement of 1,000 gallons of material one(1) mile.
- (h) Ton. Short ton consisting of 2,000 pounds. Use net certified scale weights based on certified volumes.
- (m) Ton Mile. A combination of linear and weight measurement meaning the movement of one(1) ton of material one(1) mile.”